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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,335	12/09/2003	James E. Pickering	86414WRZ	3546

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Mark G. Bocchetti
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER	
COLILLA, DANIEL JAMES	
ART UNIT	**PAPER NUMBER**
2854	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/731,335	PICKERING ET AL.
	Examiner	Art Unit
	Daniel J. Colilla	2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5-17 and 20-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *14-17 and 26-30* is/are allowed.

6)☒ Claim(s) *1,3,5-13,20-24,31 and 32* is/are rejected.

7)☐ Claim(s) *25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 Dec.2003 and 25 Apr. 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/18/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The indicated allowability of claim 10 is withdrawn in view of the newly discovered reference(s) to Kaneda et al. (US 6,444,379). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

2. Claims 1, 3, 5-9 and 20-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the above mentioned claims applicant recites that the recording element has an "inherent durability characteristic" and that this inherent durability characteristic is increased. No support for this language could be found in the specification.

Claim Rejections - 35 USC § 102

First Interpretation of Kaneda et al.

3. Claims 1, 8, 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneda et al. (US 6,444,379).

With respect to claims 1 and 20, Kaneda et al. discloses an apparatus and method for treating a recording element including a carrier removal station (i.e. the drying portion, not shown) for removing carrier by squeezing excess liquid out of the carrier (col.19,lines 17-19 and lines 24-28), and a converting station (i.e. the fixing portion, not shown, col. 19, lines 25-28)

which fixes the recording element thus making the recording element more durable. Since the converting station disclosed by Kaneda et al. is a thermal fixing portion, it uses heat to fix the recording element, thus it is increasing a durability characteristic that is already part of (or inherent in) the recording element. While Kaneda et al. does not explicitly recite that a predetermined percentage of carrier is removed, it is inherent in the design of the system that the carrier removed be within an adequate, predetermined range that achieves the desired function without removing too much carrier and causing damage to the recording element. With respect to the predetermined percentage of the carrier that is removed being based on a minimum amount that needs to be removed to prevent blistering, this determination is a functional recitation. The apparatus disclosed by Kaneda et al. has the capability to remove the required amount of carrier regardless of how the predetermined percentage was calculated. It is noted that applicant's use of the term "based on" does not provide any definite relation between the minimum amount to prevent blistering and the percentage of carrier that is removed.

With respect to claim 8, since Kaneda et al. discloses that the rolls 14 feed the recording element to a drying portion, and a thermal fixing portion, the two are adjacent one another.

With respect to claim 22, Kaneda et al. discloses that the step of increasing the durability of the recording element us performed by a thermal fixing portion which provides heat to the recording element.

Second Interpretation of Kaneda et al.

4. Claims 1, 9-10 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneda et al. (US 6,444,379).

With respect to claim 1, Kaneda et al. discloses an apparatus for treating a recording element including a carrier removal station 14 for removing carrier by squeezing excess liquid out of the carrier (col.19, lines 41-44), and a converting station (i.e. the fixing portion, not shown, col. 19, lines 25-28) which fixes the recording element thus making the recording element more durable. Since the converting station disclosed by Kaneda et al. is a thermal fixing portion, it uses heat to fix the recording element, thus it is increasing a durability characteristic that is already part of (or inherent in) the recording element. While Kaneda et al. does not explicitly recite that a predetermined percentage of carrier is removed, it is inherent in the design of the system that the carrier removed be within an adequate, predetermined range that achieves the desired function without removing too much carrier and causing damage to the recording element. With respect to the predetermined percentage of the carrier that is removed being based on a minimum amount that needs to be removed to prevent blistering, this determination is a functional recitation. The apparatus disclosed by Kaneda et al. has the capability to remove the required amount of carrier regardless of how the predetermined percentage was calculated. It is noted that applicant's use of the term "based on" does not provide any definite relation between the minimum amount to prevent blistering and the percentage of carrier that is removed.

With respect to claim 9, Kaneda et al. discloses a drying portion (col. 19, lines 24-28) between the carrier removal station 14 and the fixing portion. This drying portion can be viewed as a preheating portion.

With respect to claim 10, Kaneda et al. discloses an apparatus for treating a recording element including a carrier removal station 14 for removing carrier by squeezing excess liquid out of the carrier (col.19, lines 41-44), and a converting station (i.e. the fixing portion, not

shown, col. 19, lines 25-28) which fixes the recording element thus making the recording element more durable. Since the converting station disclosed by Kaneda et al. is a thermal fixing portion, it uses heat to fix the recording element, thus it is increasing a durability characteristic that is already part of (or inherent in) the recording element. While Kaneda et al. does not explicitly recite that a predetermined percentage of carrier is removed, it is inherent in the design of the system that the carrier removed be within an adequate, predetermined range that achieves the desired function without removing too much carrier and causing damage to the recording element. Kaneda al. discloses a drying portion (col. 19, lines 24-28) between the carrier removal station 14 and the fixing portion. This drying portion can be viewed as a preheating portion.

With respect to claim 24, Kaneda et al. discloses a method for treating a recording element including a carrier removal station 14 for removing carrier by squeezing excess liquid out of the carrier (col.19, lines 41-44), and a converting station (i.e. the fixing portion, not shown, col. 19, lines 25-28) which fixes the recording element thus making the recording element more durable. Since the converting station disclosed by Kaneda et al. is a thermal fixing portion, it uses heat to fix the recording element, thus it is increasing a durability characteristic that is already part of (or inherent in) the recording element. While Kaneda et al. does not explicitly recite that a predetermined percentage of carrier is removed, it is inherent in the design of the system that the carrier removed be within an adequate, predetermined range that achieves the desired function without removing too much carrier and causing damage to the recording element. With respect to the predetermined percentage of the carrier that is removed being based on a minimum amount that needs to be removed to prevent blistering, this determination is a functional recitation. The apparatus disclosed by Kaneda et al. has the capability to remove the

required amount of carrier regardless of how the predetermined percentage was calculated. It is noted that applicant's use of the term "based on" does not provide any definite relation between the minimum amount to prevent blistering and the percentage of carrier that is removed. Kaneda et al. discloses a drying portion (col. 19, lines 24-28) between the carrier removal station 14 and the fixing portion. This drying portion can be viewed as a preheating portion.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the first interpretation of Kaneda et al. (US 6,444,379) as applied to claim 1 above, and further in view of Vincent et al. (US 5,650,808).

Kaneda et al. discloses the claimed apparatus for treating a recording element except for specifying how much of the carrier is removed. However, Vincent et al. teaches an apparatus for treating a recording element including a carrier removal station 68 which completely dries the recording element (Vincent et al., col. 3, lines 40-42). In other words substantially 100% of the carrier is removed. It would have been obvious to combine the teaching of Vincent et al. with the apparatus disclosed by Kaneda et al. for the advantage of preheating the recording element so that it is brought up to the proper temperature for printing for the particular type of recording element (Vincent et al., col. 3, lines 42-47).

7. Claims 5, 6, 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the first interpretation of Kaneda et al. (US 6,444,379) as applied to claims 1, 8, 20 and 22 above, and further in view of Goldberg et al. (US 6,513,924)

With respect to claims 5, 6, and 7, Kaneda et al. discloses the claimed apparatus for treating a recording element except that it is not known to the examiner what type of dryer is used in the carrier removal station. However, Goldberg et al. discloses a heating device in the carrier removal station that can be a heating element, an infrared radiation element or a device for blowing heated air (col. 4, lines 30-37 and lines 46-49). It would have been obvious to combine the teaching of Goldberg et al. with the apparatus disclosed by Kaneda et al. for the advantage of using heat to accelerate the drying process.

With respect to claim 23, as mentioned above, Goldberg et al. discloses devices for applying heat in order to remove carrier from the recording element.

8. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the second interpretation of Kaneda et al. as applied to claims 1, 9-10 and 24 above, and further in view of Ueda et al. (US 5,160,399).

With respect to claim 11, Kaneda et al. discloses the claimed apparatus for treating a recording element except for the controller and operating parameter. However, Ueda et al. teaches an apparatus for treating a recording element including a converting station (fixer 2,3a,3b) which is controlled to adjust the temperature based on a sensed temperature (operating parameter) of the surface of the fixing roller 3a (Ueda et al., col. 44, lines 58-67). It would have

been obvious to combine the teaching of Ueda et al. with the apparatus disclosed by Kaneda et al. for the advantage of reliably controlling the fixing temperature.

With respect to claim 13, Ueda et al. teaches adjusting the temperature based on an algorithm store in the controller (Ueda et al., col. 45, lines 1-5).

9. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the second interpretation of Kaneda et al. as applied to claims 1, 9-10 and 24 above, and further in view of Nakazato et al. (US 5,930,551).

With respect to claims 11-12, Kaneda et al. discloses the claimed apparatus except for the controller and operating parameter. However, Nakazato et al. teaches a converting station (fuser 107) which has a controller 400 and a temperature (operating parameter) that is adjustable by a user (Nakazato et al., col. 12, lines 25-29). It would have been obvious to combine the teaching of Nakazato et al. with the apparatus disclosed by Kaneda et al. for the advantage of being able to adjust the temperature of the fuser 107 so that it can be optimally matched with the type of recording element being used in the printer.

10. Claims 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the first interpretation of Kaneda et al. as applied to claims 1, 8, 20 and 22 above, and further in view of Nakazato et al. (US 5,930,551).

Kaneda et al. discloses the claimed apparatus except that it is not known to the examiner how the durability of the recording element is increased. However, Nakazato et al. discloses a fuser 107 with a pressure 107b for increasing the durability of the recording element (col. 3, lines

30-34). It would have been obvious to combine the teaching of Nakazato et al. with the apparatus disclosed by Kaneda et al. for the advantage of being able to adjust the temperature of the fuser 107 so that it can be optimally matched with the type of recording element being used in the printer.

11. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over the first interpretation of Kaneda et al. (US 6,444,379), as applied to claims 1, 8, 20 and 22 above, and further in view of Takekoshi et al. (US 2003/0234847).

Kaneda et al. discloses the claimed apparatus except for the exhaust fan. Takekoshi et al. discloses exhaust fan 220. It would have been obvious to combine the teaching of Takekoshi et al. with the apparatus disclosed by Kaneda et al. for the advantage of exhausting excess heat that might interfere with normal machine operation.

12. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over the first interpretation of Kaneda et al. (US 6,444,379) as applied to claims 1, 8, 20 and 22 above, and further in view of Peter (US 6,283,590).

Kaneda et al. discloses the claimed apparatus for treating a recording element except for the cooling air flow. However, Peter teaches a system for treating a recording element including a carrier removal station 60 with a cooling fan 62 which provides a cooling air flow. It would have been obvious to combine the teaching of Peter with the system for treating a recording element disclosed by Kaneda et al. for the advantage of preventing damage to the recording element should it stall or jam (Peter et al., col. 4, lines 1-11).

Allowable Subject Matter

13. Claims 14-17 and 26-30 are allowed.

14. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments with respect to the rejected claims have been considered but are moot in view of the new ground(s) of rejection.

Although the examiner believes the amendment to the claims that required a new grounds of rejection to be improper, new art has been applied in the case that it is not improper. This action has been made non-final due to the withdrawal of previously indicated allowable subject matter.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kiene et al., Imaeda and Satoi are cited to show other examples of apparatus for treating a recording element including a carrier removal station and a durability characteristic increasing station.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Colilla whose telephone number is 571-272-2157. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 12, 2005

Daniel J. Colilla
Primary Examiner
Art Unit 2854